Update on Record of Decision for Parcel E

Hunters Point Naval Shipyard
August 29, 2013

Presentation Overview

- Review select comments on draft ROD and preliminary responses (for topics that may require further discussion)
- Review schedule for finalizing ROD

Topics for Further Discussion

- Future soil gas survey
- Refinement of soil gas action levels
- Groundwater action levels for radionuclides
- Future cleanup along shoreline and adjoining open space areas
- Remedial action objective for soil

Comments/Response to Discuss

Synopsized Comment (DTSC):

- Please add that soil gas surveys will be conducted: (1) in focused areas where concerns continue about residual VOCs in soil or where VOCs are present in groundwater, (2) at the groundwater remediation areas following completion of the remedial action for groundwater, and (3) to evaluate the need for remedial action or the reduction or retention of an ARIC for VOCs.

Preliminary Navy Response:

- The ROD will be revised to clarify that soil gas surveys will be conducted, following a planning process performed in consultation with the regulatory agencies, in focused areas of Parcel E (described further on next slide).

Comments/Response to Discuss

Preliminary Navy Response (continued):

- The purpose of the future soil gas survey will be to:
  - Investigate soil gas where concerns continue about residual VOCs in soil or groundwater (in areas planned for mixed use)
  - Identify COCs for which risk-based numeric action levels for VOCs in soil gas would be established (based on a cumulative excess cancer risk of 1 in a million)
  - Evaluate the need for remedial action or the reduction or retention of the ARIC for VOCs

Comments/Response to Discuss

Synopsized Comment (EPA):

- The ROD needs further clarification to explain how soil gas action levels will be refined in the future. Explain more about the process to be followed and state that applicable and effective State and EPA vapor intrusion guidance will be followed at that time.

Preliminary Navy Response:

- The ROD will be revised to clarify that soil gas action levels will be refined in a manner consistent with the approach used for Parcels B, D-1, G, and UC-2 and State and EPA vapor intrusion guidance.
- The refinement of soil gas action levels will be based on a two-step risk assessment process (described further on next slides).

Comments/Response to Discuss

Preliminary Navy Response (continued):

- *Step 1, Screening-Level Risk/Hazard Characterization –* Future soil gas data will be initially compared to screening levels established using (1) exposure assumptions and toxicity criteria consistent with December 2011 tech memo (that established preliminary soil gas action levels), and (2) conservative attenuation factors (the ratio of indoor air concentrations to subsurface soil gas concentrations).

Comments/Response to Discuss

Preliminary Navy Response (continued):

- *Step 2, Location-Specific Assessment –*
  After the initial (Step 1) comparison, areas with unacceptable risk will be further evaluated using a location-specific approach to exposure assessment, toxicity assessment, and risk and hazard characterization. The methodology will be consistent with the March 2013 tech memo that evaluated soil vapor intrusion risks at Parcels D-1, G, and UC-2.
- The exposure assessment will consider the physical characteristics of the soil (soil type, porosity, bulk density, and moisture content) at each area to determine whether or not site-specific adjustments to the conservative attenuation factors (used in Step 1) are appropriate.

Comments/Response to Discuss

Synopsized Comment (Water Board):

- The ROD states that "*future monitoring will include analysis for radionuclides in groundwater to demonstrate that radionuclides are not present at activity levels that are both statistically significant and pose an unacceptable risk to human health and the environment.*" How will acceptable activity levels and risks be determined?

Preliminary Navy Response:

- The ROD will be revised to clarify that the potential risk to human health and the environment will be initially evaluated using simple (non-statistical) threshold comparisons to fixed standards (e.g., drinking water criteria) and, if necessary, by statistical tests comparing the site data to fixed standards (one-sample statistical tests).

Comments/Response to Discuss

Preliminary Navy Response (continued):

- The initial data evaluation would be consistent with the methods used in the Radiological Addendum to the FS Report, and would involve a conservative comparison with drinking water standards (the only available regulatory criteria for radionuclides in groundwater). The comparison of shallow A-aquifer groundwater data with drinking water standards is conservative and is not reflective of potential human exposure at Parcel E.
- Additional data evaluation methods will be specified in the Remedial Design and may include (1) statistical analyses of trends and multiple verifications of statistically significant exceedances, and (2) evaluation of data from downgradient monitoring locations to determine if activity levels are diminishing as they reach the bay.

Comments/Response to Discuss

Synopsized Comment (DTSC):

- Figure 10 (Soil Remediation Areas) – If the area located along the shoreline at the northwestern corner of Parcel E is also slated to undergo soil and shoreline sediment removal, then incorporate the approximate area into the figure accordingly.

Preliminary Navy Response:

- Figure 10 will be revised to identify the shoreline area in the northwestern corner of Parcel E, where the Navy is currently performing a soil investigation. The ROD will also be revised to note that the ongoing investigation in this area is likely to identify additional Tier 1, Tier 2, and TPH locations requiring excavation and off-site disposal. The Remedial Design will identify the specific locations to be excavated in this area.

Comments/Response to Discuss

Synopsized Comment (EPA):

- The RG for mercury in IR-02 and IR-03 (reuse areas EOS-1 through EOS-4) should not be based on recreational or construction worker exposure scenarios (210 mg/kg and 93 mg/kg, respectively) because these areas are adjacent to the shoreline. Based on problems with mercury in groundwater at IR-26 in Parcel B, it is necessary to remediate mercury contaminated soil to the residential standard (2.28 mg/kg), except in areas protected by the underground barrier, to ensure that mercury is not discharged to San Francisco Bay above the California Toxics Rule (CTR) criterion.

Comments/Response to Discuss

Preliminary Navy Response:

- The proposed RG for mercury in soil is based on the potentially complete exposure pathways, which for Redevelopment Blocks EOS-1 through EOS-4 is recreational and construction worker exposure.
- The FS Report evaluated the potential presence of mercury in groundwater at concentrations that could result in unacceptable discharge to the Bay (exceeding CTR criteria). The evaluation determined that mercury is only a chemical of ecological concern in groundwater at two wells within the Former Oily Waste Ponds.
- The remedy for the Former Oily Waste Ponds includes a combination of removal, treatment, containment, and monitoring actions that will prevent discharges that would result in mercury concentrations greater than the CTR criterion.
- Therefore, the proposed RG for mercury need not be changed.

Comments/Response to Discuss

Synopsized Comment (SFDPH):

- Please re-phrase the soil RAO to use the term “minimize exposure” instead of “prevent exposure.” All of the activities listed are anticipated and allowed because the residual levels in the soil will not cause a health concern during the listed activities.

Preliminary Navy Response:

- Consistent with the RTCs for the Proposed Plan, the Navy does not agree that the requested changes are appropriate for the ROD. The Navy wishes to clarify that the requested change would be inconsistent with RAOs developed for other HPNS parcels with similar final remedies as Parcel E.

Tentative Schedule

- Over-the-shoulder review of RTCs and ROD Revisions:
  October 14-18, 2013

- Meeting to discuss RTCs and ROD Revisions (if needed):
  October 23, 2013

- Final review of RTCs and ROD Revisions:
  November 5-8, 2013

- Circulate ROD Signature Page:
  November 11-15, 2013

- Submit Final ROD:
  November 20, 2013